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SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE
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Item 5 (c) of the provisional agenda

METHODOLOGICAL ISSUES

OTHER MATTERS

Information on impacts, adaptation and mitigation assessment methods

Note by the secretariat

I. MANDATE AND SCOPE OF THE NOTE

1. At its sixth session, the Subsidiary Body for Scientific and Technological Advice (SBSTA) noted, and strongly supported, the work undertaken by the United Nations Environment Programme (UNEP) on the *Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies* and the UNEP Collaborating Centre on Environment and Energy at Riso, (UCCEE), Denmark, on assessing mitigation measures and policies. The SBSTA invited these organizations to continue to provide information on their activities to the SBSTA (FCCC/SBSTA/1997/6). These activities are included in the programme of work on methodologies (FCCC/SB/1997/INF.2).

2. In addition, by its decision 9/CP.3 (FCCC/CP/1997/7/Add.1), the Conference of the Parties (COP) requested the Convention secretariat to continue its work on methodologies for adaptation technologies, in particular that concerning decision tools to evaluate alternative adaptation strategies.

3. This note provides information on how UNEP, in collaboration with the Free University of Amsterdam, and UCCEE have responded to the above mandates. Further information on these activities is contained in the following reports: *The Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies* (UNEP/University of Amsterdam); and *Economics of Greenhouse Gas Limitations: Methodological Guidelines* (UCCEE). Further

information on these reports will be made available to Parties at the tenth session. The reports are also available on-line through the University of Amsterdam and the UCCEE web sites respectively.

4. This note also provides information on an informal report, *Decision Tools to Evaluate Alternative Adaptation Strategies,* compiled by the secretariat with the assistance of Stratus Consulting Incorporated.

II. POSSIBLE ACTION BY THE SBSTA

5. The SBSTA may wish to:

(a) Take note of the information provided by UNEP and consider how such information should be used. For example, it may wish to encourage Parties to use the UNEP *Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies*, and the UCCEE report, *Economics of Greenhouse Gas Limitations: Methodological Guidelines,* in the preparation of their national communications;

(b) Call this information to the attention of the SBI for use, as appropriate, in any guidance to the Global Environment Facility, as well as in relation to the programme of work on implementation of Article 4, paragraphs 8 and 9, of the Convention (decision 3/CP.3 and Articles 2.3 and 3.14 of the Kyoto Protocol);

(c) Provide guidance related to the report, *Decision Tools to Evaluate Alternative Adaptation Strategies,* to the secretariat; and

(d) Request Parties to provide information to the secretariat on other important impact assessment and adaptation decision tools.

III. UNEP HANDBOOK ON METHODS FOR CLIMATE CHANGE IMPACTS ASSESSMENT AND ADAPTATION STRATEGIES

6. In response to the above mandate, UNEP, in collaboration with the Free University of Amsterdam, developed the *Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies* (version 2.0, October, 1998).

7. The Handbook was developed in cooperation with several country study teams. It was supported through the the UNEP/GEF project "Country Case Studies on Climate Change Impacts and Adaptation Assessments". Twenty-two lead authors provided contributions to the individual chapters of the Handbook.

8. The Handbook expands upon the IPCC *Technical Guidelines for Assessing Climate Change Impacts and Adaptations*. It provides an introduction to the wide range of methods available for impact assessment and adaptation strategies.

9. The Handbook comprises two parts. Part I provides guidance on various generic issues related to an assessment of climate change impacts and adaptation strategies including: a series of important questions which must be addressed at the start of any assessment; the selection, development and use of socio-economic as well as climate change scenarios; guidance on conducting integrated assessments of the impacts of climate change and adaptation to climate change; and theoretical explanations of the concept of adaptation, as well as guidance on the generic design of adaptation studies.

10. Part II contains nine sectoral chapters (water resources, coastal zones, agriculture, rangeland/livestock, human health, energy, forest, biodiversity, fisheries). Each chapter provides information and guidance on the range of sectoral methods and approaches related to an assessment of climate change impacts and adaptation strategies. Important models and decision tools for each sector are briefly described. Each chapter also identifies literature that research teams may wish to consult, for example, at the design stage of a study.

IV. UCCEE REPORT ON ECONOMICS OF GREENHOUSE GAS LIMITATIONS: METHODOLOGICAL GUIDELINES

11. UCCEE has completed a two-year UNEP/GEF-funded project: Economics of Greenhouse Gas Limitations. The objectives of the project were to develop national capacity for climate change mitigation studies, in particular by supporting the development of guidelines for methodologies, implementing frameworks and reporting systems.

12. The project has developed, applied and tested methodological guidelines in collaboration with 11 countries (Argentina, Botswana, Ecuador, Estonia, Hungary, Indonesia, Mauritius, Senegal, Tanzania, Vietnam, Zambia). Detailed results for the cost of greenhouse gas limitations as well as the potential for low-cost greenhouse gas limitations (measured using direct costs and benefits) for each country are provided in 11 individual country study reports. These reports will be made available to Parties by UNEP.

13. The report, *Economics of Greenhouse Gas Limitations: Methodological Guidelines*, provides a general overview of the main components of climate change mitigation assessment. These include an outline of key economic concepts, scenario structure, modelling tools, country study assumptions as well as common assumptions applied to greenhouse gas emission reduction policies in the energy, forestry, agriculture, industry and waste management sectors.

V. DECISION TOOLS TO EVALUATE ALTERNATIVE ADAPTATION STRATEGIES

14. The secretariat, with the assistance of Stratus Consulting Incorporated, has initiated a study to systematically identify and describe generic and sectoral decision tools for evaluating adaptation strategies. The study is intended to complement the UNEP Handbook by providing a simple reference guide on important decision tools, specifically to evaluate alternative adaptation strategies. A draft report will be made available as a conference room paper for the tenth session of the SBSTA.

15. Over 50 decision tools have been identified, in the fields of coastal resources, agriculture, water resources and human health, as well as generic decision tools which have been, or could be, used specifically for the evaluation of adaptation strategies. Many of the specific decision tools correspond to the general methods described in the UNEP Handbook. A common template is used to systematically describe key features of each tool including: a general description, appropriate uses, scope, key inputs and outputs, ease of use, training required, training offered, cost, and a list of supporting documentation.